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Investigating Translation Challenges of English Affixations in Medical Leaflets into Arabic

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Abstract

This paper sheds light on the challenges faced by the student translators when they translate certain affixations in medical texts. It is difficult to understand the medical words without knowing the meaning of affixations attached to them because they have their own meanings and give a scientific reference to the words attach to. The study hypothesizes that student translators have limited knowledge and awareness of such affixations in the medical context especially the leaflets which are widely used in medicines. This paper also investigates the challenges those translators face when they manage the translation of the affixations into Arabic. The data are taken from different medical leaflets and translated into Arabic due to certain strategies used by the translators from English into Arabic. This paper shows to what extent the translation is clear for the TT readers and convey the meaning adequately. In this paper, Vinay and Darbelnet strategies have been adopted in this study to see how the meaning of affixations in the ST is conveyed in TT.

Keywords: Affixation, Scientific Translation, Translation Strategies, Leaflets.

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دراسة تحديات ترجمة لواحق الكلمات الإنكليزية في النشرات الدوائية الطبية الى اللغة العربية

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المخلص: تسلط هذه الدراسة الضوء على التحديات التي يواجهها المترجمين من الطلبة عند ترجمة لواحق الكلمات في النصوص الطبية اذ ان من الصعب فهم الكلمات الطبية بدون معرفة معنى هذه اللواحق المرتبطة بها لأنها تمتلك معناها التقني الخاص وتعطي اشارة علمية للكلمة المتربط بها. اذ تفترض الدراسة بان المترجمين من الطلبة لديهم ادراك ومعرفة محددة لمثل هذه اللواحق في السياق الطبي و بالأخص النشرات الدوائية الطبية المستخدم بشكل واسع في الادوية. وكذلك تبحث هذه الدراسة التحديات التي يواجهها المترجمين في ترجمة معنى هذه اللواحق الى اللغة العربية. تم الحصول على البيانات من النشرات الطبية المختلفة و التي تم ترجمتها الى اللغة العربية وفق استراتيجيات محددة استخدمها المترجمين من اللغة الانكليزية الى اللغة العربية. كذلك تبين هذه الدراسة الى اي مدى تكون الترجمة واضحة لقارئ اللغة الهدف و تنقل المعنى بشكل واضح اذ تم استخدام استراتيجيات فيناي و داريلنت في هذا الدراسة لترجمة اللواحق في اللغة المصدر وكيفية نقل المعنى الى اللغة الهدف.

الكلمات الدالة: اللواحق، الترجمة العلمية، استراتيجيات الترجمة، النشرات الدوائية.

1.Introduction

Translation is a means in which communication takes place between people who do not speak the same language and do not share the same culture. Therefore, it is considered one of the important activities to transfer the meaning of the source text in one language to the meaning of the target text in the second language. Some scholars and specialists in translation studies assert that translation is not only the transfer of linguistic content, but rather the process of transferring cultural norms to the reader or listener of the target text.

The different types of translation depend on the purpose of the translation and the field in which it will be used. Each type has its own characteristics, strategies, and the mechanism by which the process of transferring meaning from the first language to the second language takes place. Scientific translation is one of the most difficult types of translation that needs specific criteria and pathways. The translator ,who performs it ,should be familiar with most the scientific terms related to the field he is translating according to its quality because it is related to academic sciences, and cannot be acquired through audiovisual communication.

Scientific translation is considered an umbrella for many other types of translation that have a specificity within the field of translation in which it is used for the purpose of communication and transfer of scientific facts between the two languages.

One of the sub-types of scientific translation is the medical translation which is widely used in different fields whether academic, commercial and manufacturing of medicines. In medical translation, there are many affixations and terminologies used that require a high degree of accuracy and adequacy to be translated from one language into another. This paper tries to reveal the challenges that student translator encounters when transferring the meaning of ST lexical items that contain an affixation and require an attention to its meaning when it is rendered into TT. It also figures out which strategies can be used in translating affixation.

2.The Concept of Medical Translation

Translation has a very significant position in the process of communication between people in all the aspects of their life. But Long before English became a *lingua franca* for the scientific purposes, Latin played an important role as a main language all over the world and used widely in translation many book in different fields. Generally, Bell (1991:13) defines translation as a task that can be occurred from one language into another that aims at transferring the meaning as accurately as possible taking into account all grammatical and lexical features of the SL by discovery of equivalents in the TL. Bell asserts that when the translator transfers the meaning, he has to pay attention into all aspects that may affect the meaning in TT taking into account the lexical, grammatical and semantic aspects.

Wright and Wright (1993:43) explain that scientific translation as a means for transferring meaning of special texts which are written to be used by languages for Special purposes (LSP).In other words, this type includes the translation of texts in medicine, physics, chemistry and engineering that requires not only a command of source and target texts, but also understanding the subject matter, skills needed to translate as an author in TT and understanding the subject matter treated by the text. For Byrne (2006:6) scientific translation deals with terms, concepts and types of texts that are completely different from other types, and the most important characteristic of the medical texts makes the scientific translator produces texts that are completely identical to the texts of the writer of the target text.

In his significant study, Karwacka (2015:4) shows that many medical findings have been kept in records and translation played a significant role in publicizing the medical information and knowledge into all the parts of the world. He adds that there were many physicians conveyed medical writings into other languages such as Assyrian, Arabic, Persian and Hebrew.

Moreover, He says that Baghdad had one of the most prominent and prosperous medical and translation schools in the 7th century.

These schools played an important role in transferring the medical knowledge and information into Different languages. Furthermore, Tracey (2018:2) states that there were enormous efforts during the mid-eighth century by the Abbasid Caliphate in Baghdad which was a center of medical, commercial and cultural activities. One of most significant figure of Baghdad translators was Hunayn ibn Ishâq (809–875), who works as a doctor and an author for medical subjects and he translated approximately 90 of Galen's works from Greek into Syriac and about 40 into Arabic. During that era, there were many medical books have been translated from Arabic into other languages and vice versa.

Mostly, Abulhassan (2019:33) emphasizes that medical translation comes under the umbrella of scientific translation through which the translator works in a medical context to convey the meaning of textual materials from one language into the textual

materials in another language. And what makes it eminent type is the usage of terms, objectivity, explicitness, usage of simple structures, accuracy and impersonality.

3. Medical Language

The language of medicine is exclusively used in the medical and nursing fields, and it has characteristics that make it completely different from other types. As the medical language is clear and direct, it is used to convey scientific and established facts or to clarify a specific mechanism related to medicine or health. It is also far from the creativity that is frequently used in other types of languages such as literary language.

Rask(2008:3) mentions that there are three classifications of medical terms and each one is used within a certain groups of people to communicate, exchange information and document information. These classifications are extremely characterized with their medical features and structures that make the medical discourse is highly specialized for a certain group. These classifications include the following:

- Scientific medical terms used among professional medical staff.
- General medical terms used between medical staff and patients.
- Medical terms used among medical staff (often jargon).

For Altarabin(2018:207) learning medical language is similar to learning a new language because most of medical lexical items are stemmed from Greek and Latin words. Furthermore, when one needs to understand the medical words, he has to understand how these medical words are divided into smaller components and to understand how they are spelled and pronounced.

3.1. Features of Medical Language

The medical language is always used in certain medical context. Therefore, this language has its own features which distinguish it from other types. The medical language is widely and continuously employed by people in several and different situations related to medical matters and in different regions. Moreover, this language is used by people of different ages because it is related to their health and daily life. Both Hassan (2019:33) and Omer (2021:58) highlight the most significant features of the medical language in which different genres can be used to convey the medical lexical items from St into TT as follows:

a) **Denotation:**

It means that the medical term denotes one specific meaning in the medical context for example " brain" is used to refer the part of the central nervous system. While in the standard English " brain is used to acquire connotative value e.g." use your brain to solve the problem".

b) **Conciseness:**

This refers that the medical idea is expressed concisely by using lexical and syntactic form for creating a concise meaning, for example:

Antiviral is resulted from (Anti : مضاد) and (viral as adj. of virus: فيروسي) it becomes (مضاد فيروسي).

Within the medical context, the physicians use abbreviations and acronyms to quickly record the patients' information. The word (Urinalysis) refers to the biological, chemical and physical examination of urine which is derived from urine and analysis. These abbreviations are economical, clear, direct and understandable to allow them communicate efficiently and professionally.

c) **Simple Structure and Sentence Ordering**

In the medical language the simple sentences are always used because this kind of language must be clear and direct and the sentence needs to be highly ordered to convey the medical meaning directly and properly.

d) **Objectivity**

The crucial aim of the medical language is to be informative as much as possible because this language is not used to be characterized with subjectivity. The content is the main focus in this language to achieve certain goals and provide the users and beneficiaries with information about medicines and medical instruments.

e) **Precision**

Words in the medical context can be structurally analyzed and divided into their basic components: prefix, root and suffix. The medical term (*hypoglycemia*) means (انخفاض سكر الدم) and when it is analyzed into its main components: hypo= decreased, gly= sugar, cemia = blood.

3.2. Leaflets as a Medical Text

Medical leaflets are considered as one of the forms of medical language, which has a unique peculiarity from other medical genres. In addition, these leaflets require accurate medical translation to convey lexical concepts and affixations concisely and precisely and because any defect in their translation leads to create complications and sometimes death of the patient. Different scholars study the text types and how these texts function. Reiss is one of the most prominent translation scholars who works on the text types in translation.

Reiss (1989:106) proposes three text types based on their functions as follows:

- 1. Informative:** In this types, the content is the main focus of communication and it is used to transmits information logically and precisely in medical text, academic texts and
- 2. Expressive:** In this type, the form is the main focus of communication and it is used to transfer the information aesthetically.
- 3. Operative:** This type is used to motivate the reader or listener to act or to response in a certain way. The main focus of communication in this type is appellative.

Leaflets are considered as informative text because they achieve the purpose of communicating the information to the people in logic and clear way within the medical context. Trosborg(1997:146) distinguishes between genre and text type. For him, genres form an open –ended set, text types constitute a closed set with only a limited number of categories. Thus, the leaflets are considered as conventional medical text type used to communicate the information clearly in the medical situation or contexts.

Herber *et.al* (2014:2) define leaflet as document involved in every medicine set to provide written information about the medication by the manufacturer which is written in a standard template and the key purpose is to inform the patients or the users about their medicines such as administration, precautions and potential side effects. Moreover, Owusu *et.al* (2020) consider leaflet as a piece of standardized written information given to the medicine users or patients to explain the effective use of the medicine that prepared by pharmaceutical manufacturers which can be available in three formats such as (package inserts, loose leaflets, and electronic).

4. Qualifications of Medical Translators

Medical translation is one of the most important types of translation through which the textual material is transferred from the source language to the textual material for the target yield. Medical translation requires extensive knowledge of all the terms and concepts related to the medical context. Thus, it necessitates the translator to understand all meanings in order to be able to convey the meaning in an accurate manner because

his inability may lead to problems in understanding what is required to be conveyed in a highly precise way.

Karwacka (2014:6) mentions that both medical translators and interpreters require specific qualification to manage the medical context. He adds that there is a controversy regarding their academic background whether medical/pharmacist or linguist which permit them to translate successfully. Medical translation necessitates specific skills in translation and wide knowledge about the whole medical context whether with the translators have medical and linguistic experience.

According to IMIA (International Medical Interpreters Association), medical documents must be rendered by experts who possess a level of language proficiency, cultural knowledge in both languages, terminology, application of translation strategies, use of medical databases, dictionaries and CAT tools etc. Moreover, the medical translator should be able writing in medical genres and register of the medical context. Karwacka (2015:19) .

For Tosun *et al*(2015:6) the specialized translator in a specific field whether medical, industrial and engineering has to possess key qualifications enabling him to work successfully in transferring the meaning form one language into another. As far as the medical translator is concerned, he has to possess the following qualifications.

- Having a good command of the grammar, vocabulary, language properties, stylistics and dictation of both languages.
- Having a good background knowledge of medicine to make sure that a message is conveyed without distortions.
- Having the ability to translate coherently the content and structure of the texts.
- Having other components of medical translator competence include: application of translation strategies, medical jargon and employing CAT tools in translating medical terminologies.
- Having the ability to predict and prevent the possible misunderstandings and mistakes when transfer the message.

Generally speaking, the medical translator has to possess the qualifications mentioned above and try always to improve his skills and competencies needed to manage the medical text. Mastering these skills requires some kind of practice in the field of translation for all kinds of medical texts and being away from creativity that is needed in literary texts because medical texts depend on accuracy and the transmitting of information in details so that no defects occur.

4. Translation Strategies

Most translation scholars stress the importance of adopting clear and precise steps for translating texts of all kinds in order to reach the desired meaning and avoid what is inappropriate with the context in which this text is used. Therefore, strategies are considered one of the most important axes in translating texts, which represent plans followed by the translator in order to accurately define the conceptual framework for the meaning.

Translation strategies are unavoidable in tackling a text or its segments during a translation process. Krings(1986:18)states that translation strategy is translator's potentially sensible plan used for solving actual translation problems in the framework of a concrete translation task. Loescher (1991:8) emphasizes that translation strategy is a potential procedure employed by the translator consciously to solve a problem encountered in rendering a text, or any part of it. For Naoum (2001:178), strategy can be defined as any metalinguistic or metacognitive comment which leads to the discovery of a way through a problem. Moreover, strategy is conceptually broader than

methods and procedures because it represents a plan which constitutes decision-making tools in the process of the translation.

Generally, most translation scholars see that translation strategies have certain characteristics that make them significant and distinguished such as *goal-oriented, problem-centered, potentially conscious, and inter-subjective*. Thus, the strategies have the same features whenever employed and their vital purpose is to achieve the aims of the translation and reach good output. These strategies help the novice translators and translation student develop their awareness in managing the translation process and avoid inadequate rendering of affixations and other aspects of the texts they translate successfully. Together, the strategies are needed in translation task because through which the final product is framed.

Romaniuk and Zapotichna (2020:2) define translation strategies as a set of rules, aims and procedures employed by the translator in the translation task to plan his own explicit and precise style among other translators, and highlight the his final translation product among other translations.

They add that the translator is a key player in the translation process and to fulfill his task successfully these strategies must be employed practically on different level whether semantically, syntactically and pragmatically. In the same context, Khudaybergenova(2021:3) says that translation strategy is used by the translator or the practitioner to designate the basic approaches used in solving specific problems within the task of translation in order to overcome the literalisms and find out the ideal equivalent.

5. Vinay and Darbelnet Translation Strategies

In this study, Vinay and Darbelnet strategies have been used as a model to analyze the translation of the participants and see how they adopt the procedures of these strategies. Ni(2009:2) explains that Vinay and Darbelnet present a broad categorization of translation procedures in which there are two main strategies direct and indirect. These two strategies cover seven procedures. Ni adds that direct and indirect (oblique) translation in some degree are correspondent to literal and free translation respectively. Heshmatifar and Biria(2015:4) highlight the significance of Vinay and Darbelnet strategies in the translation process and how the procedures are used to render the meaning from SL into the TL. They show that direct strategy is classified into (*borrowing, calque and literal translation*) whereas oblique strategy is also classified four into procedures (*transposition, modulation, equivalence and adaptation*). To better understand Vinay and Darbelnet strategies, Japhari (2019:2) explains in details the procedures of the two strategies as:

1. **Borrowing**: this procedure is used by taking SL lexical item into the TL in order to bridge the gap in the TL. It is seen as the simplest procedure and it is regularly applied to present the flavor of the SL in TL time. Moreover, it is used to transfer a thorough effect and to ensure that a cultural element is not translated entirely out of existence.
2. **Calque**: it is a specific category of borrowing in which the translator borrows an expression from the ST by transforming literally every part of the original elements.
3. **Literal translation**: it is a procedure of direct transfer of the source text into grammatical and idiomatically appropriate target text. It has been described as the most common translation procedure used between two languages from the same family and culture. By this procedure, the translator concentrates the translator concentrates principally on following the linguistic rules of the TL.

4. **Transposition:** It involves substituting one word class with another class without changing the message. It deals with grammatical changes in translation. This procedure is highly used by translators because it offers a variety of options that help avoid problems of untranslatability.
5. **Modulation:** It is a change in the point of view or a change of perspective when rendering the message from the ST into the TT. Modulation is mostly used to stress the meaning, to affect coherence or to find out natural form in the TL.
6. **Equivalence** is often desirable for the translator to use an entirely different structure with different meaning from that of the source language text so long as it is considered appropriate in the communicative situation equivalent to that of the source language text.
7. **Adaptation:** it refers to the altering of the cultural reference when a situation in the source culture does not exist in the target culture. Its aim is to bridge the cultural gap between both ST and TT culture.

6. Affixations in Language

In Linguistics, there are different phenomena that are characterized with certain features and have direct effect on the word. Affixation is a morphological form that has been investigated under the umbrella of morphology through which new words are created. There are two kinds of affixation inflectional affixes and derivational affixes. In the medical text, the root of many words seem to be unified with specific morphemes in order to create new words. Many examples show that there are many medical words are created by certain affixations for making new words.

For example: Arteriosclerosis: this medical word consists of two: (Arterio) refers to (Arteries) means (شرايين) while (sclerosis) means (تصلب). The Arteriosclerosis means (تصلب الشرايين او الاوعية الدموية).

According to Bauer (1983:43) affixation is regarded as the process of fixing affixes: prefixes, suffixes and infixes to the stem of certain word or words. For him, affixation is generally shown as the bound morphemes which are used in unification with other morphemes such as root or stem. Moreover, David Crystal (2011) refers that affixes are limited number in a language, and are commonly categorized into three groups due to their position with reference to the root or the stem of the word: those which are joined to the beginning of the root or the stem are called prefixes e.g., Unhappy; those which follow are called suffixes as in the case of happiness and then those which occur within the root or the stem are called infixes.

Abeyweera (2020:3) defines affixation as the process through which words can be created either in a different form of the specific word or a new word with a different meaning. Morpheme is the smallest meaningful unit in a language which is used in creating different form of a word or a new word. In this sense, an affix is a morpheme attached to a stem (core/ root or basic) of a word to create new words. In English language, words are created by affixing morphemes to roots of words.

5.1. Types of Affixation

There are three main types of affixation can be seen in language. These three types are also used in the medical texts and lead to create new words that translators may face challenges to translate them. The medical translator requires good awareness of affixation types in order to render the word precisely because if part of it is mistranslated will lead to translation problem.

For Hasanah(2014) affixation can be classified into two main types *inflectional affixation* and *derivational affixation* which is also sub-classified into three kinds such as *suffix*, *prefix* and *infix*. These sub-types have its fixed position with stem words and through which a new meaning is created.

Natalia and Wulandari (2017:4) classify affixations into three main types including certain medical words that have affixes such as:

(1) **Prefix:** it is an affix that is added in the beginning of words, for example prefixes ‘anti-’, ‘colono-’ and ‘cyto-’ like *antibiotic* (مضاد حيوي); *colonoscopy* (منظار الأمعاء الغليظة); *Cytotoxic* (سموم الخلية).

(2) **Suffix:** it is an affix that is added in the end of base words, for example suffixes ‘(-ment), ‘-ize’, ‘-ness’ and ‘-ify’ like *treatment* (علاج); *hospitalize* (يدخل المستشفى); *conciseness* (الوعي); *purify* (يصفى).

(3) **Infix:** it is an affix that are inserted right into a root or base of word, for example In medical context the word (*costovertebrally angle*) means (الزاوية الفقرية) that consists of an infix ‘*vertebra*’ and this base gives a distinguished meaning to the word.

5.2. Views of Medical Translation Problems

Medical translation is one of the specialized types of translation that necessitates the translators to master this task precisely. To manage the medical translation task professionally, it is his responsibility to have a wide knowledge not only in the translation field but he has knowledge in the medical field.

Any drawback that occurs during the translation event may sometimes lead to the death for patient who depends on translators to get the proper information.

For Fischbach(1962:2) translation is generally a manifestation of the transferring a message from one language into the second one, regardless the communication medium used. But the medical translation is specifically different from other types of translation because it achieves not only conveying the meaning between language but it also transfers the a scientific facts need to be highly and precisely translated because they are related with patients life. In the same context, Steiert and Steiert(2011:1) emphasize that in the results of wrong transference in medical translation due to translation error can lead to endanger a person's life because the translation mistakes. Thus, the works in the medical field necessitates a highly specialized translator who has a wide knowledge in this domain and very careful in dealing with medical terminologies.

Argeg(2015:86) says that the translation problems caused by the medical term when the medical text is translated stem from problems of translating lexical item or part of it that may affect the final product in the translation process. In addition to that the translator may use medical dictionary that is not updated, which in turn affects finding appropriate equivalence in the second language. For Baker grammar is organized along with two main aspects: morphology and syntax. Morphology means the structure of words and the ways in which the form of a word changes to give new meaning or indicate specific contrast in the grammatical system and the meaning of the word. Therefore, the translator must bear in his mind that there are certain changes in the grammatical aspects of the SL and TL during the translation task. (cited in Argeg:2015:87 Baker:2011)

In her useful study of medical translation, Sheliyna(2018:5) stresses that the medical translator needs to conduct a healthy communication with medical staff in order to overcome the challenges that may face in rendering the medical source text.

Additionally, she adds that problems arise from phonology and morphology and the translator is unable to find an appropriate equivalent in the target language. In this context, the translator needs to have a wide knowledge about the Latin and Greek because most of terminologies are taken from them. Thus, the translator has to improve his knowledge in both aspects translation and medical field because any mistakes in translation process will lead to serious consequences.

7. Analytical Part

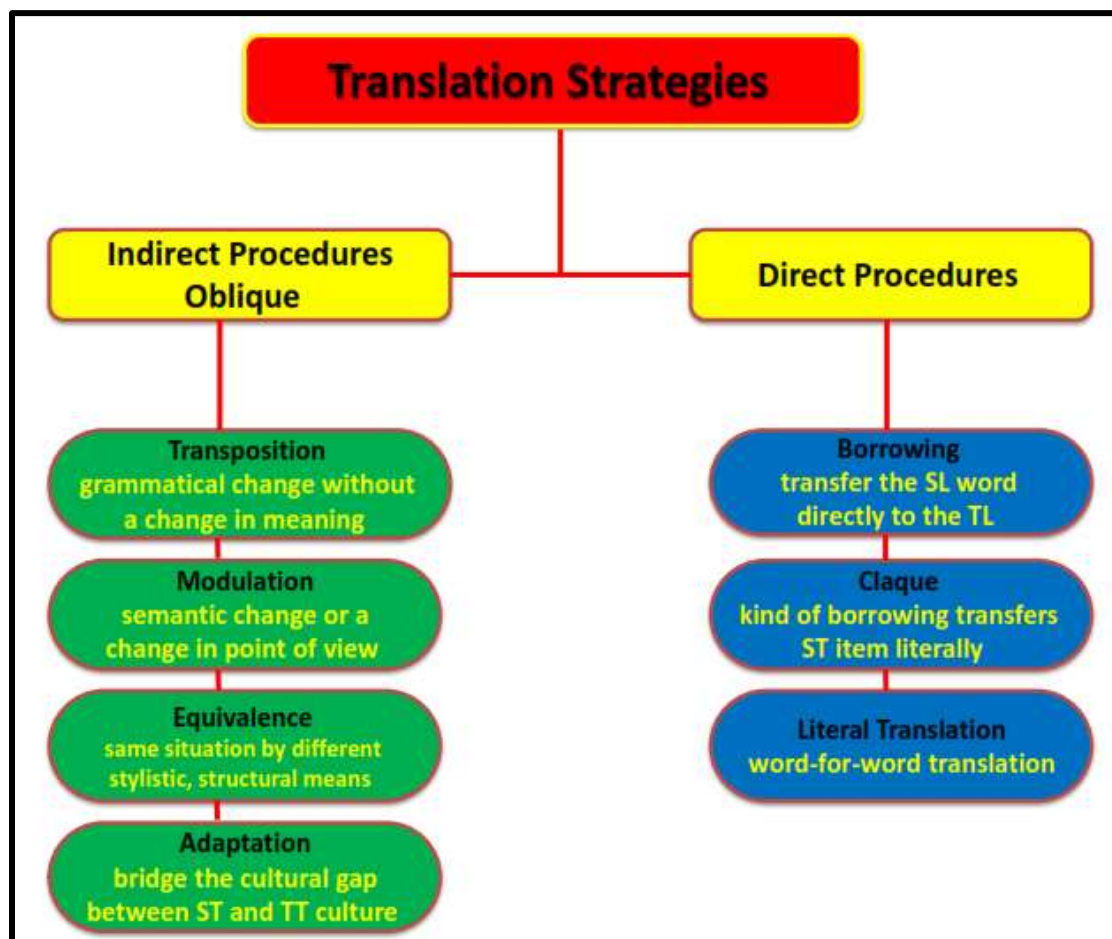
7.1. Model Adopted in this study

In this study, Vinay and Darbelnet strategies have been adopted to translate affixations attached medical lexical items in certain medical sentences collected from different medical leaflets. Briefly, these strategies are divided into direct and indirect sub-strategies that can be used to transfer the meaning from SL into the LT precisely. In brief, Figure(1) made by the researcher shows the two strategies and their categories with function of each one : **Figure: (1)** Vinay and Darbelnet strategies

Each procedure has its own function in rendering the ST lexical item used by the translator to reach an appropriate translation in TL.

7.2. Data Collection

The Data of this study have been collected from different medical leaflets as sentences



which contain specific medical items with different affixations attached to them. These affixations have their own medical meaning. The study hypothesizes that the translation students are able to manage the scientific translation task properly because such subjects are covered in the scientific translation subject. Five students have been

selected randomly during the academic year 2022/2023 from Fourth Year/ Department of translation/ College of Arts / University of Mosel. They are instructed to translate ten sentences from English into Arabic that have certain lexical items with affixations.

SL sentences:

The following sentences are used in the test that contain specific lexical items with certain affixations that are highlighted below and bear independent meaning. The following sentences are given to five translation students to see whether will be rendered successfully and what the challenges they may face in rendering them.

1. Bactiflox Neo lactab is indicated for the treatment of chronic **sinusitis** and **urethritis**.
2. This medicine is given three times a day when the patient suffers from **intraabdominal** infections.
3. All the medicines should not be taken by the patients when they have a **hypersensitivity** to ciprofloxacin.
4. When you take this medicine, you will have **dysfunctional** bleeding and Blood **hypertension**.
5. When you feel **arthralgia** , you need to go to your doctor for **arthrocentesis**.
6. In the case of chronic **Cephalomeningitis**, the patient needs to take CT-scan test soon.
7. Many doses of this tablets increase of **Cholecystolithiasis** then the patient will have **Cholecystitis**.
8. Aspirin is frequently used for the management of **cardiovascular or cerebrovascular** disease.
9. This drug leads to **cyanosis** because of lack in oxygen.
10. The daily does will be decided by your doctor for **osteoarthritis** is resulted from gradual breakdown of cartilage.

7.3 Data Analysis

The data have been analyzed according to Vinay and Darbelnet strategies to figure out how the ST sentences have been translated by the students. There are certain procedures help students translate ST sentences and see how the meaning is transferred into the TT. This analysis covers translation of ten sentences from English into Arabic by five students to see to what extent they successfully render the affixations attached to certain medical lexical items.

Translation of Student(1):

Translating ST Sentences into Arabic	#
يوصى بهذا العلاج لإمراض الجيوب الانفية والاحليل.	1
هذا الدواء يعطى ثلاث مرات باليوم عندما يعاني المريض التهابات داخل الجسم.	2
يجب ان لا تؤخذ العلاجات من قبل المرضى عندما يتعرضون الى فرط الحساسية للسبوفلاكسين.	3
عندما استعمالك هذا العلاج سوف تتعرض الى نزيف كبير و ارتفاع ضغط الدم.	4
عندما تشعر بأعراض، فانت بحاجة الى الذهاب الى الطبيب للأشعة.	5
في حالة الالتهاب الشديد على المريض ان يخضع لأشعة CT بأقرب وقت.	6
تنتج الكثير من هذه الامراض بسبب Cholecystolithiasis، على حصول المريض من التهاب المخرج.	7
يستخدم الأسبرين دائما للسيطرة على السكر في الدم و امراض cardiovascular .	8
تؤدي هذه الحبوب الى اختناق بسبب قلة الاوكسجين.	9
يوميًا يجب ان تحدد بواسطة الطبيب لان التهاب العظم الذاتي يتم بواسطة انهيار التدريجي لغضروف.	10

Translation Analysis:

Translator renders (Sent1) the ST lexical items by employing certain procedures. He translates (chronic **sinusitis** and **urethritis**) as (امراض الجيوب الانفية والاحليل). Here, he conveys the general idea of the sentence but he uses (**modulation procedure**) to transfer the affixation (itis) which means (التهاب) not (أمراض) which changes the meaning. The best rendering for such lexical items is (التهاب الجيوب الانفية و التهاب الاحليل المزمنان). He also omits the name of the medicine (Bactiflox Neo lactab). In (Sent2), he translates the lexical item (**Intraabdominal**) by using (**equivalence procedure**) which means same situation but different stylistic or structural means into (التهاب داخل الجسم). In his translation, he ignores to translate abdomen to give a specific location inside the body. In (Sent3), the translator renders the affixation (**hyper**) into (فرط) which gives literal translation in the TT. This transference of the lexical item (**Hypersensitivity**) into (فرط الحساسية) is precisely word-for-word translation. In (Sent4), two procedures have been employed by the translator, (**modulation procedure**) has been used in rendering (**dysfunctional**) into (نزيف كبير) in which the point of view is changed because the affixation (**dys**) abnormal or improper functions that lead to (نزيف وظيفي غير طبيعي او غير منتظم).

For the second lexical item (**hypertension**), it is translated precisely by using (**literal procedure**) into (ارتفاع ضغط الدم). In (Sent5), the translator does not make use of any procedure because he omits (**arthralgia**) and (**arthrocentesis**) when he renders the this sentence into Arabic. He also adds (الاشعة) into the TT which is not exist in the ST. In (Sent6), to translate (**Cephalomeningitis**) in this sentence, the translator renders only the affixation (itis) which means (التهاب) in Arabic by using (**literal translation procedure**). The lexical item (**Cephalomeningitis**) is translated into (الالتهاب الشديد) and other parts of the item are ignored. Whereas in (Sent7), the translator uses (**borrowing procedure**) to render the ST item directly into the TT as (**Cholecystolithiasis**). As for the second lexical item (**Cholecystitis**) is translated by using (**modulation procedure**) into (المخرج). This translation has no relation with context because its precise meaning in Arabic is (التهاب المرارة) and this translation is consider as semantic change because it leads into a change in the point of view.

In (Sent8), two procedures have been used by the translator. The first one is (**equivalence procedure**) in which the lexical item (**cardiovascular**) is translated with different stylistic and structural means into (السكر في الدم) not into (الوعية الدموية) (القلبية). While (**borrowing procedure**) is employed to translated (**cerebrovascular**) directly into the TL. In (Sent9), the translator uses (**adaptation procedure**) to render the lexical item (**cyanosis**) which means (ازرقاق) into (اختناق) to bridge the cultural gap between the two languages because when there percentage of the oxygen is decreased the individual is suffocated. Therefore, the translator tries to bridge this gap. In (Sent10), the (**literal procedure**) is used in rendering (**osteoarthritis**) into (تهاب العظام الذاتي) which gives good rendering that closest into (هشاشة العظام). It is good translation because the affixation (**osteo**) is translated accurately in the TT.

Translation of Student(2):

Translating ST Sentences into Arabic / Student 2		#
يستخدم البكتريا النيو مختبرية لعلاج بعض الامراض المزمنة	1	
يوصى بإعطاء الدواء ثلاث مرات في اليوم عند اصابة المريض بإصابة التهاب الجذع.	2	
لا يجب اخذ الدواء من قبل المرضى الذين يعانون من الحساسية المفرطة تجاه كيبوروفلاكسين.	3	
ستصاب بالنزيف المفاجئ و ارتفاع ضغط الدم عند اخذ هذا العلاج.	4	
عندما تشعر باي مشكلة صحية، يجب عليك زيارة الطبيب لإجراء الفحوصات.	5	
يتوجب على المريض اجراء فحص CT عند اصابته بالمرض المزمن.	6	

7	ترفع الجرعات الزائدة من هذه الحبوب الاصابة ببعض المخاطر اكثر من غيرهم من المرضى.
8	يستخدم دواء الاسبرين غالباً للسيطرة على امراض القلب او الدم.
9	يؤدي هذا الدواء الى الاغماء بسبب قلة الاوكسجين.
10	سيحدد طبيبك الخاص الجرعة اليومية المناسبة لك لان المرض ناتج عن توقف الكبد.

Translation Analysis:

The rendering of two lexical items in (Sent1) is conducted by Translator2 by employing (**Adaptation procedure**) in order to bridge the gap in TT because he considers the affixation (**itis**) in both (**sinusitis**) and (**urethritis**) as (**امراض**) not (**التهاب**). Adopting such procedure is to bridge the cultural gap in the medical context. In (Sent2), the lexical item (**intraabdominal**) has been transferred by using (**modulation procedure**) into (**التهاب الجذع**) which has no relation with meaning and or body part because the meaning of the affixation (intra) means (**أداخلي**). The translation of (**intraabdominal**) is (**التجويف البطني**) not (**التهاب الجذع**), in which the point of view is changed because of the semantic change in the meaning. In (Sent3), the lexical item (**hypersensitivity**) is rendered concisely in the TT into (**فرط الحساسية**) by using (**literal translation procedure**). In (Sent4), two procedures have been employed by the translator in rendering the two lexical items (**dysfunctional**) and (**hypertension**). For translating the first one (**modulation procedure**) because this rendering changes the point of view semantically into (**المفاجئ**) which means (**وظيفة الغير طبيعي او غير منتظم**) , and the latter (**hypertension**) is translated adequately into (**ارتفاع ضغط الدم**) by using (**literal translation procedure**). In (Sent5), the translation of both lexical items (**arthralgia**) , (**arthrocentesis**) has been conducted by (**adaptation procedure**) into (**مشكلة صحية**) and (**الفحوصات**) respectively in order to bridge the gap in the TL. No attention is paid into the affixations of both lexical items by the translator. In (Sent6), the meaning of the lexical item (**Cephalomeningitis**) is conveyed into the TT by (**modulation procedure**). In this translation, the meaning of the affixation and the other parts of the lexical item is changed into (**المرض المزمن**) which doesn't give the exact meaning. The exact meaning of (**Cephalomeningitis**) is (**التهاب المخ او السحايا**) (**المحيطة**). In (Sent7), the translator renders the lexical item (**Cholecystolithiasis**) into (**الاصابة**) by using (**adaptation procedure**) with no attention to the two affixations. While the translation of second lexical item (**Cholecystitis**) which means (**التهاب المرارة**) is omitted in the TT and no translation can be found. In (Sent8), (**cardiovascular**) and (**cerebrovascular**) both lexical items and their affixations have been rendered by using (**adaptation procedure**) in order to bridge the gap in TT with certain items in Arabic. Their translation (**أمراض القلب و الدم**) is sued fill the cultural gap in TT. In (Sent9), the translator renders (**cyanosis**) into (**الاغماء**) by employing (**modulation procedure**) that changes the meaning by giving different meaning and point of view. In (Sent10), the lexical item (**osteoarthritis**) which means (**هشاشة العظام**) has been rendered by using (**modulation procedure**) with no specific meaning for this item because the sentence is changed semantically in TT.

Translation of Student(3):

Translating ST Sentences into Arabic / Student 3		#
يُنصح بـ Bactiflox Neo lactab لعلاج التهاب الجيوب الفكية و الاحليل		1
يُعطى هذا العلاج ثلاث مرات في اليوم عندما يعاني المريض من اعراض التهاب الجوفي.		2
يجب على المريض تجنب كافة العلاجات عندما يظهر حساسية شديدة تجاه السبيروفلوكسين.		3
عندما تتناول هذا العلاج ستعاني من فقر الدم و فرط الضغط.		4
اذا شعرت بالدوار عليك مراجعة الطبيب.		5
في حالة اصابة المريض بسيفالوميننجائيتس عليه ان يجري مسح ضوئي في اقرب وقت.		6

7	اخذا العديد جرعات هذه الامراض تزيد من Cholecystolithiasis و من ثم يعاني المريض من Cholecystitis.
8	يستخدم الاسبرين غالباً لإدارة او تسكين cardiovascular او cerebrovascular
9	تؤدي هذه المخدرات الى cyanosis بسبب نقص الاوكسجين.
10	الجرعة اليومية سيحددها طبيبك.

Translation Analysis:

Here, the translator employs different procedures to render the lexical items that have certain affixations attached to. In (Sent1), for the lexical item (**sinusitis**) the affixation is rendered precisely into (التهاب الجيوب) but adds (الفكية) by using (equivalence procedure) that gives same situation but different structural means. For (**urethritis**) is rendered successfully by (literal translation procedure) into its precise meaning (التهاب الاحليل). In (Sent2), the lexical item (**intraabdominal**) has been translated into (التهاب الجوفي) by using (transposition procedure) by which the grammatical change occurs by change the word class from noun as (التهاب التجويف البطني) into adj. as (التهاب الجوفي). In (Sent3), the lexical item (**hypersensitivity**) is rendered precisely by (literal translation procedure) into (حساسية شديدة). In (Sent4), two lexical items have been translated differently (**dysfunctional**) is rendered by (modulation procedure) into (فقر الدم) which changes the point of view semantically of the ST lexical item in TT. The exact meaning of this ST item is (نزيف وظيفي غير طبيعي او غير منظم). Whereas (**hypertension**) is rendered into (فرط الضغط) by (literal translation procedure) accurately. In (Sent5), the translation of this sentence is totally different of the original meaning of ST because the lexical items (**arthralgia**) and (**arthrocentesis**) with affixations have been omitted in TT. The whole sentence is translated by (modulation procedure) through which a different meaning is given with different point of view. In (Sent6), (**Cephalomeningitis**) is rendered by (calque procedure) in which the translator borrows the meaning for the ST literally into (سيفالوميننجائيتس). In (Sent7), (Sent8), (Sent9), (**Cholecystolithiasis and Cholecystitis**); (**cardiovascular and cerebrovascular**) and (**cyanosis**) are translated by (adaptation procedure) respectively because the translation tries to bridge a gap by only rewriting the words in the TT. This is not a successful translation of such important items and their affixations in TT because their translations is significant for the patient or the medicine dealers. In (Sent10), The lexical item (**osteoarthritis**) is omitted in TT and the translation of this sentence does not achieve acceptability in the TT because the translator renders different idea.

Translation of Student(4):

Translating ST Sentences into Arabic / Student 4		#
1	يشار الى مصطلح الباكثفلوكسين على انه علاج لالتهابات الاحليل و الجيوب المزمنة.	
2	يُعطى هذا الدواء ثلاث مرات في اليوم في حال عانى المريض من عدوى معوية.	
3	و لا يجب اخذ الدواء من قبل المرضى في حال كان لديهم حساسية مفرطة تجاه مادة سيبروفلوكسين.	
4	في حال اخذ هذا الدواء ستعاني من نزيف و ارتفاع ضغط الدم.	
5	حسين تشعر بالتهاب الم المفاصل يتوجب عليك مراجعة الطبيب لغرض علاج الم المفاصل.	
6	في حالة السيفالوميننجائيتس المزمنة يحتاج المريض لأشعة مقطعة بأسرع وقت ممكن.	
7	اخذ العديد من هذه الحبوب يزيد من نسبة الكولسترول و سيعاني المريض من ارتفاع كولسترول الدم.	
8	عادة ما يستخدم الاسبرين للسيطرة على امراض القلب و الدماغ و الاوعية الدموية.	
9	بسبب هذا الدواء تضيق بالتنفس لقلة الاوكسجين.	
10	تحدد الجرعة من قبل الطبيب لغرض علاج هشاشة العظام الناتجة من تفتت الغضاريف.	

Translation Analysis:

This translator employs different procedures in rendering the lexical items. In (Sent1), the two lexical items (**sinusitis**) and (**urethritis**) have been translated by using (**literal translation**) in conveying the meaning in TT accurately into (التهاب الاحليل و الجيوب) (المزمنة) which is considered a very clear translation for the TT readers or listeners. In (Sent2), the lexical item (**intraabdominal**) is translated by (**equivalence procedure**) into (عدوى معوية) which is a precise rendering in TT. So the affixation (intra) has been translated into (معوية) which is good rendering in TT. In (Sent3), the lexical item (**hypersensitivity**) is rendered by (**literal translation procedure**) into (حساسية مفرطة) , so (**hyper**) is rendered concisely in TT into (مفرطة). In (Sent4), the lexical item (**dysfunctional**) is omitted in the TT. Only (**bleeding**) is translated into (نزيف). While (**hypertension**) is appropriately translated into (ارتفاع ضغط الدم) in TT. In (Sent5), the translator renders (**arthralgia**) into (ألم المفاصل) by using (literal translation procedure). While (**arthrocentesis**) is rendered by employing (**modulation procedure**) because it gives a different meaning. Its precise meaning is (سحب السوائل من) (المفصل). In (Sent6), the lexical item (**Cephalomeningitis**) is translated into (السيفالوميننجائيتس) in which the affixation (**cephalo**) is translated with whole item by using (**borrowing procedure**). In (Sent7), both the lexical items (**Cholecystolithiasis**) and (**Cholecystitis**) and their affixations are rendered into (نسبة الكولسترول و ارتفاع) (الكولسترول على التوالي) TT by using (**modulation procedure**) in which the meaning is changed in TT.

In(Sent8), both lexical items(**cardiovascular**) and (**cerebrovascular**)are rendered into(امراض القلب و الدماغ و الاوعية الدموية) TT by using (**literal translation procedure**). Their translation is clear and precise in the TT. In(Sent9), the lexical item (**cyanosis**)is translated by(adaptation procedure)into (تضيق بالتنفس) because the translator tries to use a lexical item for bridging the gap in TT. In(Sent10), the translator successfully renders (**osteoarthritis**) into(هشاشة العظام) in the TT by using (**literal translation procedure**). So the affixation (**osteo**) is accurately rendered into (عظام).

Translation of Student(5):

Translating ST Sentences into Arabic / Student 5	#
يوصف باكتيفلوكس نيولاكتاب لعلاج التهاب الجيوب الانفية المزمن و التهاب الاحليل.	1
يعطى هذا الدواء ثلاث مرات في اليوم للمرضى الذين يعانون من التهاب المعدة.	2
لا يجب ان يؤخذ اي دواء من قبل المريض الذي يعاني من فرط الحساسية للسيبروفلوكسين.	3
عندما تتناول هذا الدواء، ستعاني من نزيف و ارتفاع ضغط الدم.	4
عندما تشعر بالم المفاصل، ستحتاج للذهاب الى الطبيب للمعاينة.	5
في حالة التهاب رأس الرحم المزمن ستحتاج المريضة لاختبار السونار باقرب وقت.	6
العديد من جرعات هذه الحبوب تزيد من كوليسيستوليثيائسز و سيصاب المريض بالتهاب المرارة.	7
يستخدم الاسبرين لتنظيم ضربات عضلة القلب او مرض السيبروفازكيلور.	8
يؤدي هذا الدواء الى الازرقاق بسبب نقص الاوكسجين.	9
ستحدد الجرعة اليومية من قبل طبيبك لاجل الاوستروثيرتس الناتج من الانهيار الغضروفي.	10

Translation Analysis:

In (Sent1), the two lexical items (**sinusitis**) and (**urethritis**) have translated precisely in the TT by using (**literal translation procedure**) into (التهاب الجيوب الانفية) and (التهاب الاحليل) so the translator successfully renders the affixation in TT. In (Sent2), the translator uses (**equivalence procedure**) to translate (**intraabdominal**) into (تجويف) (التجويف البطني) and the translation of the affixation (**intra**) sometimes is translated (البطن الداخلية). In (Sent3), the rendering of (**hypersensitivity**) into (فرط الحساسية) is accurate in TT by using (**literal translation**

procedure). The affixation (**hyper**) is concisely translated into (فرط). In (Sent4), the two lexical item (**dysfunctional**) is omitted in the TT. The focus is on the lexical item (**bleeding**) while (**hypertension**) is translated into (ارتفاع ضغط الدم) by employing (**literal translation procedure**). In (Sent5), the lexical item (**arthralgia**) is translated into (ألم المفاصل) by (**literal translation procedure**) in TT. While the second item (**arthrocentesis**) has been omitted in TT. In (Sent6), the (**modulation procedure**) is used to render (**Cephalomeningitis**) and gives a totally different meaning in TT as (رأس الرحم). This translation is regarded as unsuccessful translation because there is huge difference between the two translations.

In (Sent7), this lexical item (**Cholecystolithiasis**) is translated by (**borrowing procedure**) into (كوليسيستوليثياسس) in TT. While (**Cholecystitis**) is rendered accurately by (**literal translation procedure**) into (التهاب المثانة) in TT. In (Sent8), two different procedures have been used to translate (**cardiovascular**) and (**cerebrovascular**). The first one is translated by (**modulation procedure**) into (ضربات عضلة القلب) which is different of the it original meaning (الاوعية الدموية القلبية). While the second one is rendered (السيبروفاز كيلور) by (**borrowing procedure**). In (Sent9), the lexical item (**cyanosis**) is successfully rendered into (ازرقاق) which a medical accurate translation in TT. In (Sent10), the lexical item (**osteoarthritis**) is translated by (**borrowing procedure**) into (الاوستروثيرتس) which does not achieve good translation in TT because its accurate meaning is (هشاشة العظام).

8. Discussion and Conclusion

In this study, there are many challenges have been identified in translating the affixation that attached to certain medical words into Arabic. These affixations have their own meanings in the medical context and they must be translated precisely and appropriately in order to give the exact meaning in the target language. Most of the students translate the whole words where the affixation attached to and could not recognize the significance of such affixation in the medical context. They also ignore the words and do not realize the impact of such words and their affixation to the meaning of the sentence.

The medical translation is considered one of the most risky task because it is directly related to the health and life of the people. Therefore, it is recommended to investigate and teach it thoroughly during the courses. Translating affixation is seen simple phenomenon but it is very critical because when one affixation is omitted the whole meaning of the sentence is changed negatively. This study concludes the effectiveness of translating affixation properly in medical context and to what extent final translation product is vital for the people who need it. This study proves that the medical translation is accompanied with several challenges in translating the medical lexical items and it requires a wide knowledge of both languages. It also necessitates the translator to have a medical familiarity about the medical vocabularies used in any medical communicative events because any mistakes will complicate the situation. Theoretical aspects of translation and features of medical translation must be taken into consideration in teaching medical translation during the courses in order to improve the student translator qualifications gradually.

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